

## IN THE CLAIMS:

## Please amend the claims as follows:

1. (currently amended) An apparatus for treating coal-bed-methane water, the apparatus comprising:

a pump to deliver delivering coal-bed-methane water from at least one coal-bed-methane well into a reservoir;

a generator to produce producing aqueous sulfurous acid to treat the coal-bed-methane water contained in the reservoir; and

an injection system to inject injecting soluble gypsum into at least one of the aqueous sulfurous acid and the coal-bed-methane water to further treat the coal-bed-methane water in the reservoir.

- (previously presented) The apparatus of claim 1, further comprising a control system
  to control a water flow rate through the generator to achieve a desired concentration of sulfurous
  acid.
- 3. (previously presented) The apparatus of claim 2, wherein the control system comprises a pH sensor to ascertain the pH of the coal-bed-methane water being treated; a controller connected to the pH sensor to receive a signal representative of the pH, comparing the signal to a set point for a desired water pH, and providing an output control signal, to a control means to adjust the water flow rate to achieve a desired concentration of sulfurous acid.

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- 4. (previously presented) The apparatus of claim 3, wherein the control means comprises a variable frequency drive (VFD) to adjust the water flow rate.
- 5. (previously presented) The apparatus of claim 3, wherein the control means comprises a variable frequency drive (VFD) to adjust the water flow rate through a valve, the valve controlling the water flow rate through the generator.
- 6. (previously presented) The apparatus of claim 2, wherein the control system comprises a flow rate sensor to measure the water flow rate through the generator; a controller connected to the flow rate sensor to receive a signal representative of the flow rate and to provide an output control signal to a flow control means to adjust the water flow rate through the generator to achieve a desired concentration of sulfurous acid.
- 7. (previously presented) The apparatus of claim 2, wherein the control system comprises a feed load cell to determine the weight of sulfur fed to the generator.
- 8. (previously presented) The apparatus of claim 7, further comprising a timer circuit to calculate a feed burn rate based on a change of an output of the feed load cell over time.
- 9. (previously presented) The apparatus of claim 2, wherein the control system comprises a flow meter to measure the water flow rate.

10. (previously presented) The apparatus of claim 2, wherein the control system comprises a timer to selectively start and stop the generator.

11. (new) An apparatus for treating coal-bed-methane water, the apparatus comprising:
a pump pumping coal-bed-methane water from at least one coal-bed-methane well into a
reservoir;

a generator producing aqueous sulfurous acid to treat the coal-bed-methane water contained in the reservoir;

an injection system injecting soluble gypsum into the coal-bed-methane water to further treat the coal-bed-methane water; and

a control system comprising a control, a pH sensor to ascertain the pH of the coal-bed-methane water being treated, and a controller receiving from the pH sensor a signal representative of the pH, comparing the signal to a set point for a desired water pH, and providing an output control signal to the control acting on the output control signal and adjusting the water flow rate to achieve the desired water pH.

- 12. (new) The apparatus of claim 11, wherein the control comprises a variable frequency drive (VFD) to adjust the water flow rate.
- 13. (new) The apparatus of claim 11, wherein the control comprises a variable frequency drive (VFD) to adjust the water flow rate through a valve, the valve controlling the water flow rate through the generator.

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- 14. (new) The apparatus of claim 11, wherein the control system further comprises a feed load cell to determine the weight of sulfur fed to the generator.
- 15. (new) The apparatus of claim 14, wherein the control system further comprises a timer circuit to calculate a feed burn rate based on a change of an output of the feed load cell over time.